Fujitsu recommends Windows 8 Pro.

Data Sheet
Fujitsu CELSIUS W420 Workstation

The Gateway to Workstation Performance

If your application requirements have outgrown the performance of a standard PC, the Fujitsu CELSIUS W420 is designed for you. This attractively-priced, compact workstation is individually configurable and allows easy tool-less expansion for greater working flexibility. Unique low-noise emissions help you increase your productivity.

Noise-reduced system engineered in Germany
Quiet and productive working environment
- Optimized thermal management, low-noise chassis and silent fans

Advanced performance
Get more done in less time
- The latest processors and professional graphics cards

Upgradeability
Minimum downtime in the event of rapid component upgrades
- Screw less access system design

Leading workstation application certification
Maximum compatibility and performance with customer-preferred applications
- Support for a selection of ISV applications and easy integration into existing IT environments

Individual products
Free configurability for all product lines
- You are given a system optimized for your individual requirements

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Components

Processor	Intel® Core™ i7-3770 processor (4 Cores / 8 Threads, 3.40 GHz, up to 3.9 GHz, 8 MB, Intel® HD Graphics 4000) *
	Intel® Core™ i5-3570 processor (4 Cores / 4 Threads, 3.40 GHz, up to 3.8 GHz, 6 MB, Intel® HD Graphics 2500) *
	Intel® Core™ i5-3470 processor (4 Cores / 4 Threads, 3.20 GHz, up to 3.6 GHz, 6 MB, Intel® HD Graphics 2500) *
	Intel® Core™ i3-3220 processor (2 Cores / 4 Threads, 3.30 GHz, 3 MB, Intel® HD Graphics 2500)
	Intel® Core™ i3-2130 processor (2 Cores / 4 Threads, 3.40 GHz, 3 MB, Intel® HD Graphics 2000)
	Intel® Core™ i3-2120 processor (2 Cores / 4 Threads, 3.30 GHz, 3 MB, Intel® HD Graphics 2000)
	Intel® Pentium® processor G860 (2 Cores / 2 Threads, 3.00 GHz, 3 MB, Intel® HD Graphics)
	Intel® Pentium® processor G645 (2 Cores / 2 Threads, 2.90 GHz, 3 MB, Intel® HD Graphics)
	Intel® Pentium® processor G640 (2 Cores / 2 Threads, 2.80 GHz, 3 MB, Intel® HD Graphics)
	Intel® Celeron® processor G550 (2 Cores / 2 Threads, 2.60 GHz, 2 MB, Intel® HD Graphics)
	Intel® Celeron® processor G540 (2 Cores / 2 Threads, 2.50 GHz, 2 MB, Intel® HD Graphics)
	Intel® vPro™ Logo with Intel® Core i5 and Core i7 processors
Operating systems	
Operating system	Windows 8 Pro Windows 8 Windows® 7 Professional 64-bit Windows® 7 Professional 32-bit Windows® 7 Home Premium 64-bit Windows® 7 Home Basic (EM) 32-bit
Operating system compatible	Windows® XP Linux
Operating system notes	Limited Windows® XP support. Microsoft discontinued Windows® XP certification on system level, basic drivers via http://support.ts.fujitsu.com
Memory modules	2 GB (1 module(s) 2 GB) DDR3, unbuffered, non-ECC, 1600 MHz, PC3-12800, DIMM
	4 GB (1 module(s) 4 GB) DDR3, unbuffered, non-ECC, 1600 MHz, PC3-12800, DIMM
	8 GB (1 module(s) 8 GB) DDR3, unbuffered, non-ECC, 1600 MHz, PC3-12800, DIMM
Graphics add on cards (optional)	Midrange 3D: NVIDIA® Quadro® 2000D, 1 GB, 192 cores, PCIe x16, 2x Dual Link DVI-I
	Midrange 3D: NVIDIA® Quadro® 2000, 1 GB, 192 cores, PCIe x16, Dual Link DVI-I, 2x DisplayPort
	Midrange 3D: AMD FirePro™ W5000, 2 GB, 800 stream processors, PCIe x16, Dual Link DVI-I, 2x DisplayPort
	Midrange 3D: AMD FirePro™ V5900, 2 GB, 800 stream processors, PCIe x16, Dual Link DVI-I, 2x DisplayPort
	Entry 3D: AMD FirePro™ V4900, 1 GB, 480 stream processors, PCIe x16, Dual Link DVI-I, 2x DisplayPort
	Entry 3D: NVIDIA® Quadro® 600, 1 GB, 96 cores, PCIe x16, Dual Link DVI-I, DisplayPort
	Entry 3D: AMD FirePro™ V3900, 1 GB, 480 stream processors, PCIe x16, Dual Link DVI-I, DisplayPort
	Entry 3D: NVIDIA® Quadro® 410, 512 MB, 192 cores, PCIe x16, 1x DVI-I, DisplayPort
	Professional 2D: NVIDIA® Quadro® NVS 450, 512 MB, 2 x 8 cores, PCIe x16, 4 x DisplayPort
	Professional 2D: NVIDIA® Quadro® NVS 300, 512 MB, 16 cores, PCIe Gen2 x16, 2x DVI/VGA

Hard disk drives (internal)	SSD SATA III, 512 GB, 2.5-inch
	SSD SATA III, 256 GB, 2.5-inch
	SSD SATA III, 128 GB, 2.5-inch, SED
	SSD SATA III, 128 GB, 2.5-inch
	SSD SATA III, 64 GB, 2.5-inch
	SSD SATA II, 128 GB, 2.5-inch, FDE
	HDD SATA III, 10000 rpm, 600 GB, 3.5-inch
	HDD SATA III, 7200 rpm, 2000 GB, 3.5-inch
	HDD SATA III, 7200 rpm, 1000 GB, 3.5-inch, business critical
	HDD SATA III, 7200 rpm, 1000 GB, 3.5-inch
	HDD SATA III, 7200 rpm, 500 GB, 3.5-inch, business critical
	HDD SATA III, 7200 rpm, 500 GB, 3.5-inch
	HDD SATA III, 7200 rpm, 250 GB, 3.5-inch
	HDD SATA II, 7200 rpm, 2000 GB, 3.5-inch, business critical
	HDD SATA II, 7200 rpm, 320 GB, 2.5-inch
	HDD SATA II, 7200 rpm, 160 GB, 2.5-inch
Hard disk notes	One Gigabyte equals one billion bytes, when referring to hard disk drive capacity. 24/7 ready (business critical HDDS required) Up to 18 GB of HDD space is reserved for system recovery
Drives (optional)	BD Triple Writer SATA slim (tray)
	DVD-ROM
	DVD Super Multi
	MultiCard Reader 20in1, USB 2.0, 3.5-Inch
	MultiCard Reader 24in1 USB 2.0 3.5"
Interface add on cards/components (optional)	
	WLAN III, 802.11g/Draft-n (Windows only)
	Parallel Interface
	Gigabit Ethernet PCIe x1, DS
	eSATA Interface
	Dual serial card PCIe x1, powered
	Dual serial card PCIe x1
Base unit	CELSIUS W420
Mainboard	
Mainboard type	D3162
Formfactor	µATX
Chipset	Intel® Q77
Processor socket	LGA 1155
Processor quantity maximum	1
Memory slots	4 DIMM (DDR3)
Supported capacity RAM (max.)	32 GB
Memory frequency	1600 MHz
Memory notes	Dual channel support. For dual channel performance, a minimum of 2 memory modules have to be ordered. Capacity per channel has to be the same.
LAN	10/100/1000 MBit/s Intel® 82579 LM
BIOS version	AMI Aptio 4.6
BIOS features	BIOS Flash EPROM update by software Recovery BIOS Unified Extensible Firmware Interface (UEFI)
Audio codec	Conexant CX20642

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Mainboard	
Audio features	Internal speaker supports audio playback, High Definition audio, 5.1 surround sound
I/O controller on board	
Serial ATA total	6
thereof SATA III	2
thereof eSATA	2 (optional)
Controller functions	Serial ATA II (3 Gbit) Serial ATA III (6 Gbit) NCQ AHCI RAID 0/1/5/10 (Windows XP not supported) Intel® Smart Response Technology (depending on CPU)
Interfaces	
Audio: line-in	1
Audio: line-in / microphone	1
Audio: line-out	1
Front audio: microphone	1
Front audio: headphone	1
USB 2.0 total	10
USB 3.0 total	4
USB front	2x 2.0/ 2x 3.0
USB rear	6x 2.0 / 2x 3.0
USB internal	2
VGA	1 (via DVI to VGA adapter, part of shipment)
DisplayPort	1
DVI	1
Serial (RS-232)	1 (9pin, 16 byte FIFO, 16550 compatible)
Mouse / Keyboard (PS/2)	2
Ethernet (RJ-45)	1
Parallel	1 (optional) (25pin with EPP and ECP)
eSATA	1 (optional)
Interface Module notes	Anytime USB charge functionality
Drive bays	
Drive bays total	7
2.5-inch internal bays	1
3.5-inch internal bays	2
3.5-inch external bays	2
5.25-inch external bays	2
Slots	
PCI-Express 2.0 x16	1 x (312 mm /) Full height
PCI-Express 2.0 x4 (mech. x16)	1 x (312 mm /) Full height
PCI-Express x1	1 x (312 mm /) Full height
PCI (32-bit / 33 MHz)	1 x (170 mm /) Full height
Graphics on board	
Graphics brand name	Intel® HD Graphics, HD Graphics 2000, HD Graphics 2500, HD Graphics 4000 (depending on CPU)
Shared video memory	up to 1759 MB

Graphics on board	
TFT resolution (VGA)	1024 x 768 pixel 1280 x 1024 pixel 1360 x 768 pixel 1440 x 900 pixel 1600 x 900 pixel 1600 x 1200 pixel 1680 x 1050 pixel 1920 x 1080 pixel 1920 x 1200 pixel
TFT resolution (DVI)	1360 x 768 pixel 1440 x 900 pixel 1600 x 900 pixel 1680 x 1050 pixel 1920 x 1080 pixel 1920 x 1200 pixel
TFT resolution (DisplayPort)	1360 x 768 pixel 1440 x 900 pixel 1600 x 900 pixel 1680 x 1050 pixel 1920 x 1080 pixel 1920 x 1200 pixel 2560 x 1440 pixel 2560 x 1600 pixel
Graphics features	Dual display support DirectX® 10.1 or DirectX® 11 (depending on CPU) HDCP support Open GL® 3.1 (depending on CPU) Open CL™ 1.1 (depending on CPU) For multi monitoring mode, graphics card and integrated graphics run in parallel (Microsoft® Windows 7® only)
Graphics notes	Tested resolutions, depending on display type additional resolutions and frequencies possible Shared memory depending on main memory size and operating system Resolution (color depth up to 32 Bit/pixel) For TFT we recommend using 60Hz
Electrical values	
Power efficiency note	power supply efficiency (at 230V; 20% / 50% / 100% load) : 87% / 90% / 87%
Rated voltage range	100 V - 240 V
Rated frequency range	50 Hz - 60 Hz
Operating voltage range	90 V - 264 V
Operating line frequency range	47 Hz - 63 Hz
Max. output of single power supply	300 W
Power factor correction/active power	active
Noise for standard configuration (HDD, ODD)	
Noise emission	According to ISO9296
Related Processors for noise	tbd
Noise Operation mode 4: High load	21 dB(A)
Noise Operation mode 5: Office applications	20 dB(A)
Noise notes / description	A weighted sound power level Lwad (in B) / workplace related A-weighted sound pressure level LpAm (in dB(A)), Bystander position
Dimensions / Weight / Environmental	
Dimensions (W x D x H)	175 x 419 x 395 mm
Operating position	Vertical
Weight	approx. 11 kg
Weight notes	Actual weight may vary depending on configuration
Operating ambient temperature	10 - 35°C

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Dimensions / Weight / Environmental	
Operating relative humidity	5 - 85 % (relative humidity)
Compliance	
Product	CELSIUS W420
Model	MI5W-3162
Germany	TÜV GS
Europe	CE Nordic Swan in progress
USA/Canada	FCC Class B cCSAus
Global	RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronic equipment) Microsoft Operating Systems (HCT / HCL entry / WHQL) ENERGY STAR® in progress EPEAT® in progress (dedicated regions)
Compliance link	https://sp.ts.fujitsu.com/sites/certificates/
Security	
System protection	Kensington Lock support Eye for padlock Optional: Integrated cabinet lock Optional: Intrusion switch
Audit proof protection	EraseDisk (optional) Boot sector virus protection Write protect option for the Flash EPROM Embedded security (TPM 1.2) Control of all USB interfaces External USB ports can be disabled separately Control of external interfaces
Access protection	User and supervisor BIOS password Hard disk password Optional: Access protection via external SmartCard reader Optional: Access protection via internal SmartCard reader Optional: SmartCase Logon+
Additional Software	
Additional software (preinstalled)	Nero Essentials S (burning software) Fujitsu Recovery (Hard Disk Based Recovery) Norton Internet Security (incl. Firewall) 60 days version Don't forget Office.
Additional software (optional)	Recovery DVD for Windows® Drivers & Utilities DVD (DUDVD) CyberLink PowerDVD BD (playback software for Blu-ray Disc™, only with Blu-ray Disc™ drive / Blu-ray playback is not supported under Windows XP if the system runs on Intel onboard graphics) Nero 10 Essentials XL
Miscellaneous	
	Keyboard on (Special Fujitsu keyboard required) Thermal management Extended lifetime
Manageability	
Manageability technology	DeskUpdate Driver management PXE 2.1 Boot code Wake up from S5 (off mode) Intrusion switch (optional) iAMT 8.0 (depending on CPU)
Manageability software	DeskView 10.x client management including:

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Manageability	
DeskView components	On/Offline remote client management Detailed system inventory management and reports BIOS Management Remote power management System notifications Security Remote Control DeskView Helpdesk Integration WoL (Wake on LAN)
Manageability link	http://ts.fujitsu.com/manageability http://www.altiris.com/fujitsu

Input device / components	
	Optical USB tilt wheel mouse
Input devices (optional)	Optical USB/PS2 tilt wheel mouse KBPC PX ECO Mouse M440 ECO Space Explorer USB Keyboard

Warranty

Maintenance and Support Services - the perfect extension

Recommended Service	5x9, Response Time: Next Business Day
Service Weblink	http://www.fujitsu.com/fts/services/support

Recommended Accessories

Keyboard KB900		The KB900 is a very flat keyboard with extra low keys and spill-resistant protection. The elegant design and top-quality construction makes the KB900 the ideal input device for any PC or Notebook user. If you accidently spill some water or coffee onto the keyboard, this special construction helps the liquid to flow away.	S26381-K560-L4** (**: Country specific variation)
Wireless Notebook Mouse WI610		The Wireless Notebook Mouse WI610 uses the latest wireless 2.4 GHz technology, and an ultra-high resolution switchable sensor to give you the precision and reliability you need (1000/1500/2000 dpi). Sporting a stylish silver-black finish, the WI610 wireless mouse is well suited to all environments.	Order Code: S26381-K460-L100

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More information

Fujitsu OPTIMIZATION Services

In addition to Fujitsu CELSIUS W420, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Fujitsu Portfolio
Build on industry standards, Fujitsu offers a full portfolio of IT hardware and software products, services, solutions and cloud offering, ranging from clients to datacenter solutions and includes the broad stack of Business Solutions, as well as the full stack of Cloud offering. This allows customers to leverage from alternative sourcing and delivery models to increase their business agility and to improve their IT operation's reliability.

Computing Products
www.fujitsu.com/global/services/computing/

Software
www.fujitsu.com/software/

More information

Learn more about Fujitsu CELSIUS W420, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
www.fujitsu.com/fts/CELSIUS

Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment.
Using our global know-how, we aim to contribute to the creation of a sustainable environment for future generations through IT.
Please find further information at http://www.fujitsu.com/global/about/environment/

Green Policy Innovation

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